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ABSTRACT

The purpose of this study was to investigate the value of the academic achievement scale (AACH) which is an index of the Strong Vocational Interest Blank (SVIB). Subjects were 149 male and female students who requested help in decision making. All subjects had taken the American College Testing program examination (ACT) and the SVIB. Grade point averages (GPA) from both high school and college were also available. The AACH scale appears, from results obtained, to be a very modest predictor of academic achievement (as measured by cumulative GPA when applied to the Counseling Center population studied). It is suggested that the scale is a relatively ineffective tool for use with the University of Utah Counseling Center population when its function is defined as discriminating between potential high and low achievers. (KJ)

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**AN INVESTIGATION OF THE ACADEMIC ACHIEVEMENT
SCALE OF THE STRONG VOCATIONAL INTEREST BLANK**

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EVALUATION OF THE AACH SCALE
STATEMENT OF THE PROBLEM

Counseling centers need to have meaningful ways of obtaining different indices on clients - indices that will aid in working with the client not only in the personal-emotional sphere, but also in the academic-vocational realm. One such index appears in the Strong Vocational Interest Blank (SVIB) in the form of the academic achievement scale (AACH) which attempts to differentiate between high and low achieving students (Strong and Campbell, 1966).

At the University of Utah Counseling Center the AACH scale is available for interpretation along with the remaining SVIB scales and is expected to be of some use to both client and counselor. Although the scale is said to be comprised of items distinguishing between high and low achievement, very limited published research has been completed to demonstrate whether or not the scale possesses predictive validity. Consequently, there is good reason to investigate the value of the AACH scale as a predictor of college performance particularly with students who seek counseling since such a population may be quite different from university students in general. The following statement by Lunneborg and Lunneborg (1966) provides general support for such an endeavor:

Counselors deal personally with a select subgroup for whom interpretations of test data should be as relevant as possible. The usefulness of a potential predictor to the counselor ideally rests on the effects of that particular variable within the client population (p. 241).

RELATED RESEARCH

Studies to date (published and unpublished) have dealt with a general population of university students (e.g., undergraduates, freshmen, etc.).

The original study on the construction and validation of the AACH scale was completed by Campbell and Johanson (1966). Four hundred sixty-two males enrolled in the College of Liberal Arts at the University of Minnesota were rank-ordered by their high school and college grade point average (GPA). The items from the SVIB that demonstrated a large response difference between the top and bottom forty per cent of the sample were selected to comprise the AACH scale. Computation of the relationship between AACH performance and first year GPA revealed a significant r of .36. However, the AACH did not contribute significantly to a multiple R composed of HSR and the Minnesota Scholastic Aptitude Test (MSAT). The authors concluded that, despite this latter finding, the scale was a moderately effective predictor and represented a different approach to measuring "grade getting behavior."

Lindsay and Althouse (1968) examined the relationship between AACH scale scores and first quarter GPA for a group of 388 Pennsylvania State University freshmen. The authors obtained r 's of .10 for 299 males and .25 for 89 females respectively.

In a study just completed at the University of Utah, Leigh (1969) obtained an r of .32 between the AACH scale and first quarter GPA for 1,994 freshmen.

METHOD

The population for this study was limited to those who had requested decision making help at a university counseling center and thus may not be representative of

university students in general. The subjects were 224 male and female students selected on the basis of having taken (1) the American College Testing Program examination (ACT) and (2) the SVIB sometime between the period Fall, 1966 to Fall, 1968. Table 1 presents descriptive data on this group.

TABLE 1
Descriptive Data On The Study Sample

VARIABLE	CATEGORIES	N	PER CENT
Sex	Male	152	67.9
	Female	72	32.1
Age	17-19	185	82.6
	21 or over	33	14.7
	No age recorded	6	2.7
Marital Status	Single	195	87.1
	Married	21	9.4
	Confidential	8	3.5

When compared with Counseling Center base data (Annual Report, 1968), these individuals seemed to represent a meaningful sub-sample of the total client population.

Additional measures collected for each subject included the following: cumulative university GPA, high school GPA (HSGPA), and ACT composite score. Such data could be collected for 149 individuals in the original sample of 224.

Table 2 summarizes data for the final sample of 149 and gives an indication of the range of GPA's represented in the study.

TABLE 2

Descriptive Data On Final Sample For Whom
University GPA, HSGPA, and ACT Composite Scores Were Available

VARIABLE*	CATEGORIES	N	PER CENT
Sex	Male	98	65.8
	Female	51	34.2
Class Standing	Freshman (0-49 qtr. hrs.)	41	27.5
	Sophomore (45-90 qtr. hrs.)	72	48.3
	Junior (90-134 qtr. hrs.)	35	23.5
	Senior (over 135 hrs.)	1	.7
College	Letters and Science	88	59.1
	Business	20	13.4
	Engineering	18	12.1
	Education	8	5.4
	Nursing	7	4.7
	Fine Arts	3	2.0
	General Studies	3	2.0
	Pharmacy	2	1.3

*Total N is 149 for each variable.

RESULTS

An r of .20 was obtained between AACH scores and cumulative GPA's. Although such a correlation is low, it is significant at the .05 level. Given the population of this study, the AACH scale appeared to have a slight positive relationship to academic achievement as measured by cumulative GPA. The scale correlated considerably more with HSGPA ($r = .39$), than with college cumulative GPA ($r = .20$). The various correlations are summarized in Table 3.

TABLE 3

Pearson Product-Moment Correlations Between AACH Scale
And Various Measures Of Academic Achievement

VARIABLES	N**	r	P
Cumulative University of Utah GPA	149	.20	<.05
High School GPA	193	.39	<.001
Act English Usage*	224	.37	<.001
ACT Mathematics Usage*	224	.28	<.01
ACT Social Studies Reading*	224	.37	<.001
ACT Natural Science Reading*	224	.32	<.001
ACT Composite*	224	.40	<.001

*Standard scores

**N varied due to availability of data

Campbell and Johansson's (1966) study focused on first year college GPA, and the correlation of .20 obtained in the present study is a good deal lower than Campbell's r of .36 (p. 417). Perhaps a crucial reason for this difference in correlation magnitude is that the present study dealt with a restricted population (Counseling Center clients) while Campbell's sample was drawn from a less restricted population (College of Liberal Arts males).

Much the same can be said with respect to Leigh's (1969) results. Although undertaken at the same time at the University of Utah as the present study, Leigh

investigated a sample population generally similar to that of Campbell's (1966) study. Leigh's population was limited to freshmen (1) who enrolled for the first time at the University of Utah, fall quarter, 1968; (2) who participated in orientation week activities; (3) who completed fall quarter and obtained a first quarter GPA; and (4) for whom ACT scores and SVIB profiles were available. Leigh obtained an r of .32 between AACH performance and GPA which closely paralleled Campbell's r of .36. Thus the explanation based on origin of population appears to be of value. Apparently, the AACH scale is less discriminative when applied to a counseling center population (clients seeking decision making help in the vocational-academic or personal-emotional spheres) than with university students in general.

CONCLUSION

The AACH scale appears to be a very modest predictor of academic achievement (as measured by cumulative GPA) when applied to the Counseling Center population studied. It is suggested that the scale is a relatively ineffective tool for use with the University of Utah Counseling Center population when its function is defined as discriminating between potential high and low achievers.

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